

# ANNUAL SURVEY ON INFOCOMM USAGE BY ENTERPRISES FOR 2013

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# **PART I: SURVEY COVERAGE, METHODOLOGY AND COMPANY PROFILE**

## 1. INTRODUCTION

The annual survey on Infocomm Usage by Enterprises for 2013 is the fifteenth in the series of such annual surveys carried out by the Research and Statistics Unit of the Infocomm Development Authority of Singapore since 1999. This survey is conducted under the Statistics Act (Chapter 317) which empowers the Director of the Research and Statistics Unit to collect data on the infocomm activities in Singapore. The Act also guarantees the confidentiality of individual information obtained from the survey.

## 2. SURVEY OBJECTIVE AND COVERAGE

This survey aims to gauge the levels and types of infocomm adoption and usage in enterprises in Singapore; and identify the barriers to infocomm adoption. Representative samples of infocomm and end-user enterprises were selected from the Department of Statistics' (DOS) Establishment Sampling Frame.

## 3. NOTES ON DATA

Past years' data are included for comparison purposes where available. Due to the rounding of numbers, the sum of individual figures may not add up to the total or 100%.

## 4. INDUSTRY PROFILE

Chart 1.1 provides a profile of the respondents by sector, with *Wholesale and Retail Trade* comprising about a third of all sectors.

**Chart 1.1: Distribution of enterprises by sector**

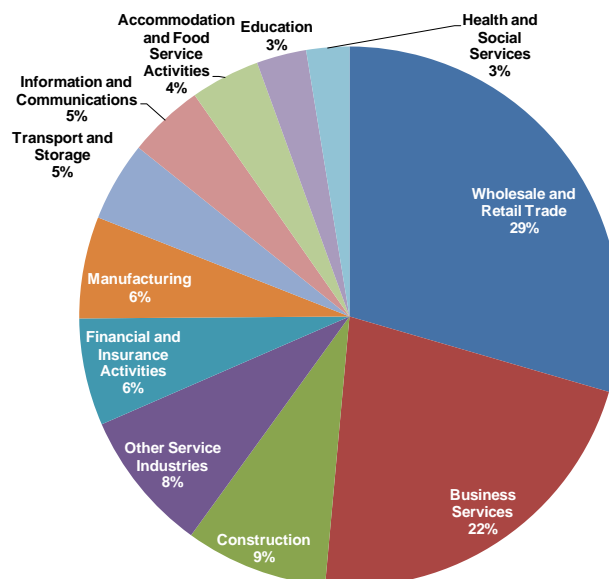
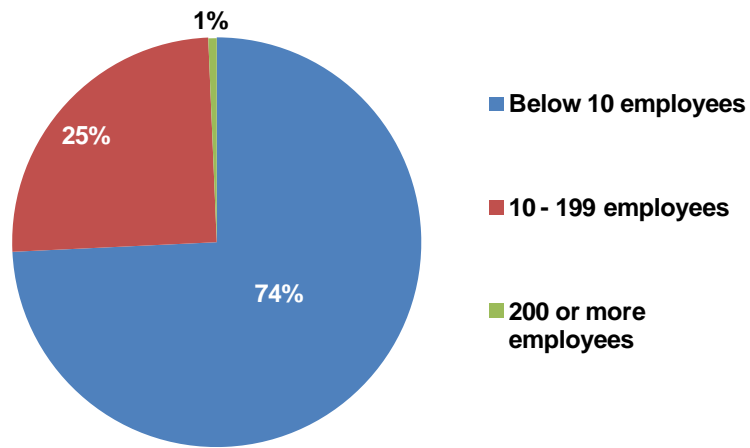


Chart 1.2 provides a profile of the respondents by employment size, with 74% of the enterprises having below 10 employees.

**Chart 1.2: Distribution of enterprises by employment size**



## **PART II: SURVEY FINDINGS**



## 1. SUMMARY

- In 2013, the usage of computers, Internet, and broadband among enterprises continued to increase. The proportion of enterprises that used computers and the Internet increased from 83% in 2011 to 87% in 2013 and from 81% in 2011 to 86% in 2013 respectively. The proportion of enterprises that used broadband increased from 78% in 2011 to 86% in 2013. The proportion of enterprises that had web presence remained at 46% in 2013, similar to that in 2012.
- Infocomm usage was the most prevalent in the *Information & Communications*; *Financial and Insurance Activities*; and *Business Services* sectors.
- While almost all enterprises that used the Internet did so via desktop PCs and laptops, more than half of enterprises were accessing Internet via mobile phones. *Sending and receiving emails* and *Information Search* were two most common Internet activities on computers and mobile equipments.
- Higher proportions of enterprises used the Internet and mobile services to conduct business. There was a large increase in the proportion of enterprises that used mobile services to engage customers, from 27% in 2012 to 42% in 2013. Enterprises used it most commonly to send products and promotional information to their customers.
- Infocomm security adoption was on the rise amongst enterprises with *Virus Checking/Protection Software* being the most commonly adopted security measure among all enterprises, followed by *Firewall* and *Anti-Spyware Software*.

## 2. INFOCOMM USAGE

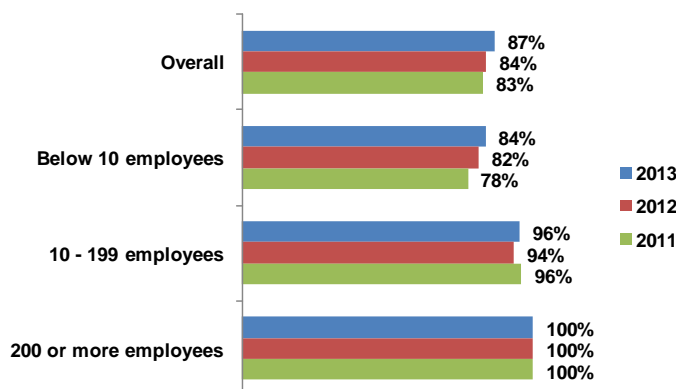
### 2.1 By Employment Size

*Usage of computers, Internet, broadband and web presence among enterprises continued to increase*

#### Usage of Computers

Computer usage among enterprises reached 87% in 2013 ([Chart 2.1](#)). When analysed by employment size, all enterprises with 200 or more employees used computers.

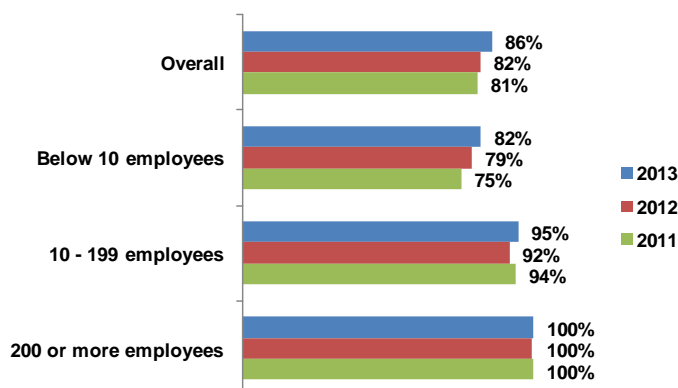
**Chart 2.1: Computer usage by employment size**



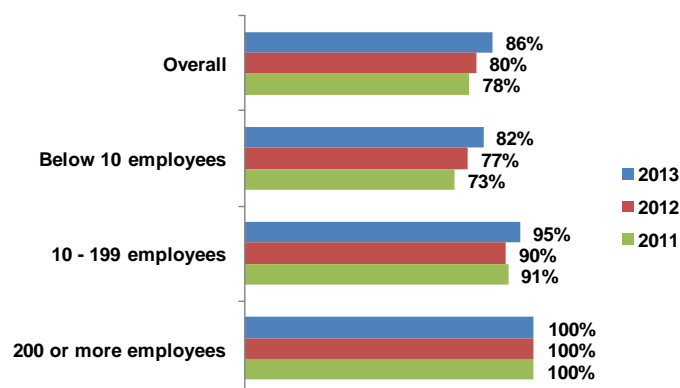
#### Usage of Internet and Broadband

Internet usage amongst enterprises increased from 81% in 2011 to 86% in 2013. Similar to computer usage, all enterprises with 200 or more employees used the Internet ([Chart 2.2](#)). Enterprises that connected to the Internet via broadband grew from 78% in 2011 to 86% in 2013 ([Chart 2.3](#)). The proportion of enterprises with web presence remained at 46% ([Chart 2.4](#)).

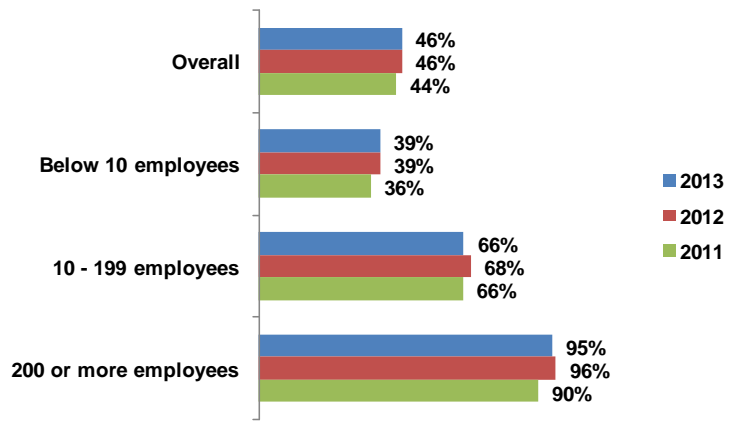
**Chart 2.2: Internet usage by employment size**



**Chart 2.3: Broadband usage by employment size**



**Chart 2.4: Web presence by employment size**

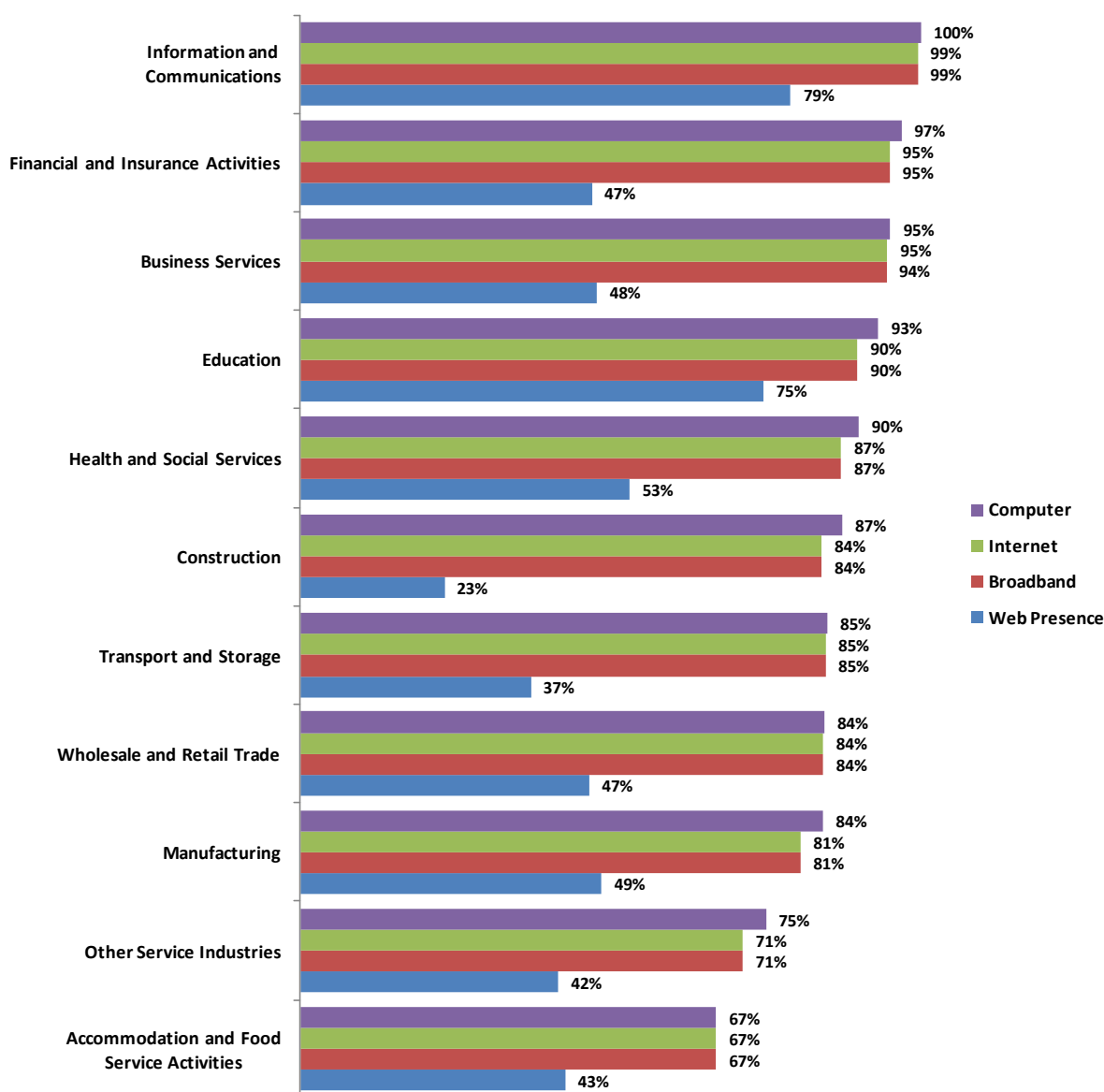


## 2.2 By Sector

**Information & Communications; Financial and Insurance Activities; and Business Services sectors were top three sectors that adopted infocomm in 2013**

The Information and Communications sector led in infocomm adoption in all aspects, with 100% computer usage and 99% Internet usage (Chart 2.5). This was followed by the *Financial and Insurance Activities* and *Business Services* sectors.

**Chart 2.5: Infocomm use by sector**



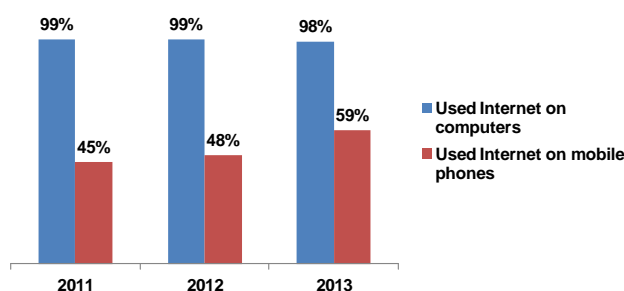
### 3. INTERNET USAGE

#### 3.1 Internet Activities

##### ***Mobile phones becoming increasingly popular mode of accessing the Internet***

86% of enterprises used the Internet (Chart 2.2) and close to all used computers to go about their Internet activities (Chart 3.1). Increasingly, mobile phones have also been used by enterprises for Internet activities, with 59% doing so, rising sharply from 45% in 2011 (Chart 3.1).

**Chart 3.1: Devices used for Internet activities**

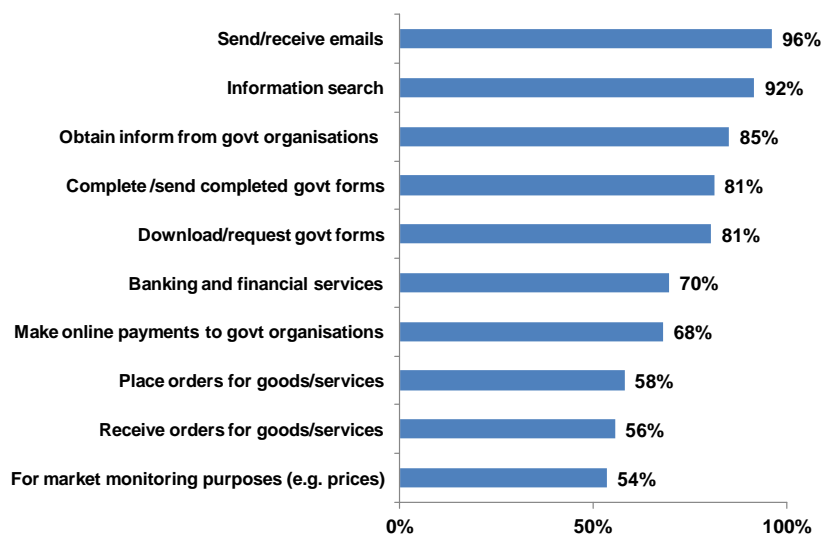


Base: Enterprises with Internet Usage

##### ***Sending and receiving emails and information search remained the most common Internet activities, even on mobile equipments***

When using the Internet on computers, the most common Internet activities were sending and receiving emails (96%), information search (92%) and getting information from government organizations (85%) (Chart 3.2).

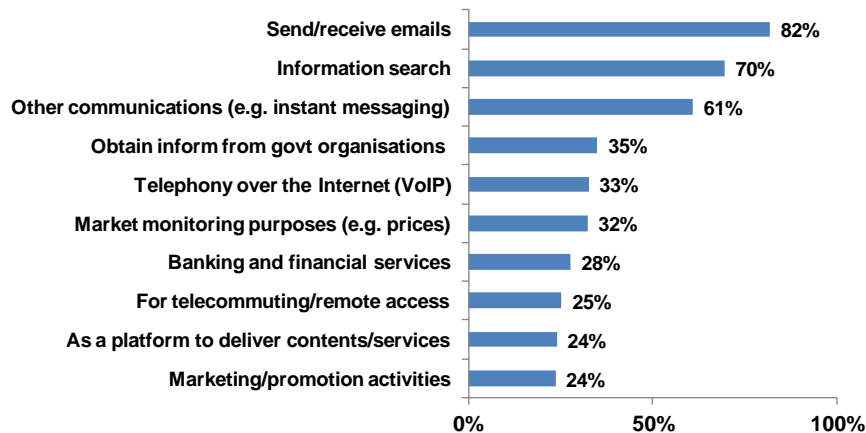
**Chart 3.2: Top 10 Internet Activities on Desktop PCs and Laptops**



Base: Enterprises with Internet Usage on Desktop PCs and laptops

When using the Internet on mobile/smart phones or tablets, sending and receiving mails and information search remained the most common activities. Due to the mobile nature of the devices, instant messaging was also a common Internet activity on mobile/smart phones or tablets (Chart 3.3).

**Chart 3.3: Top 10 Internet Activities on Mobile/Smart Phones or Tablets**



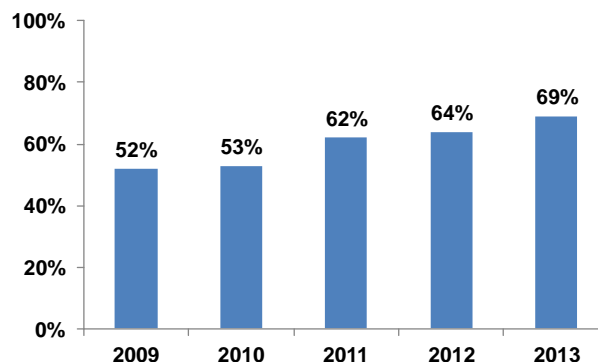
Base: Enterprises with Internet Usage on mobile/smart phones or tablets

### 3.2 Business activities using Internet and mobile services

#### ***Higher proportion of enterprises used the Internet and mobile services for business***

The use of Internet among enterprises for e-commerce<sup>1</sup> has increased steadily over the years, from 52% in 2009 to 69% in 2013 (Chart 3.4). The proportion of enterprises using mobile services (e.g. SMS/MMS, mobile websites, mobile applications) to engage consumers saw a large increase from 27% in 2012 to 42% in 2013 (Chart 3.5).

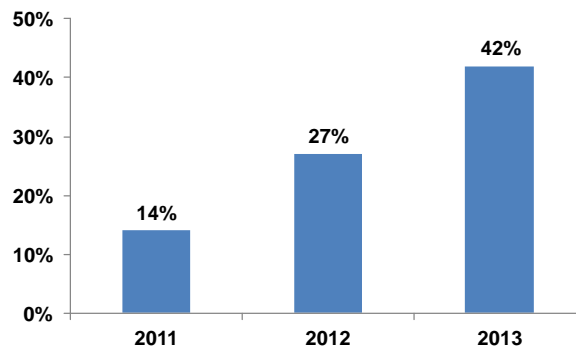
**Chart 3.4: Enterprises that use the Internet for e-commerce, 2009 - 2013**



Base: Enterprises with Internet usage

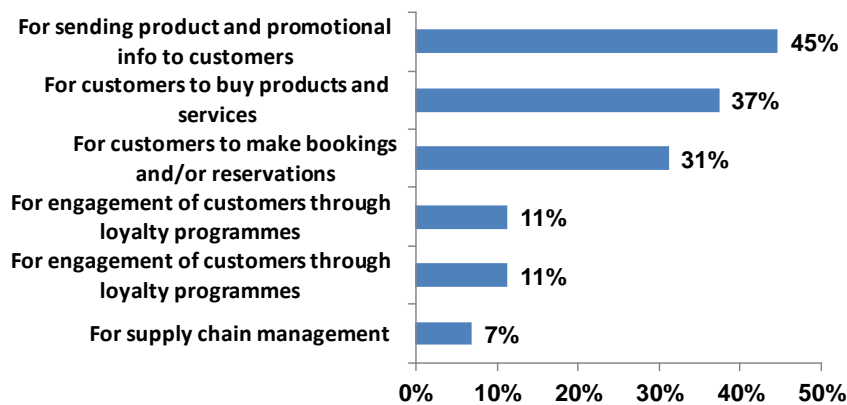
<sup>1</sup> E-commerce activities include: Receiving orders for goods/services; placing orders for goods/services; receiving payment of goods/services; and making payment of goods/services.

**Chart 3.5: Enterprises that use mobile services to engage customers, 2011 - 2013**



Enterprises that used mobile services (e.g. SMS/MMS, mobile websites, mobile applications) to engage their customers mainly used it to send product and promotional information ([Chart 3.6](#)).

**Chart 3.6 Types of business activities using mobile services**



Base: Enterprises which use mobile services

While many enterprises were aware of the benefits to using mobile services, they did not see the need to adopt them ([Table 3.1](#)).

**Table 3.1: Top five barriers to using mobile services, 2011 – 2013**

Barriers to using mobile services	2013 Ranking	2012 Ranking	2011 Ranking
Aware of benefits but no need for my enterprise	1	1	1
Lack of internal resources to implement mobile services	2	2	2
Cost of implementation is too high	3	4	3
Unaware of benefits to using mobile services	4	3	4
Unable to find a suitable solution to meet business requirements	5	5	5

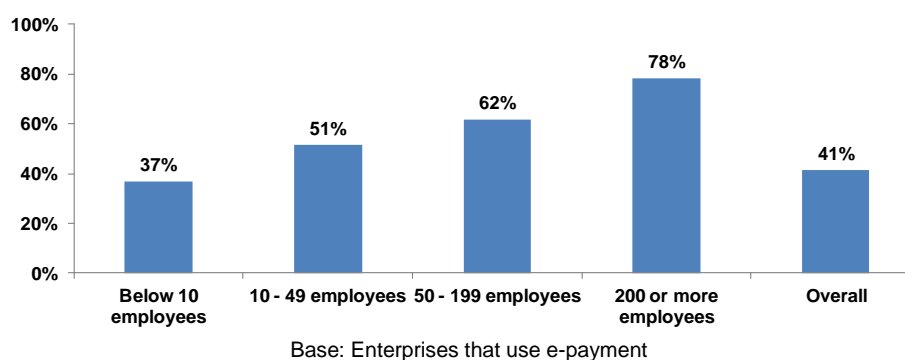
Base: Enterprises that do not use mobile services

### 3.3 E-payment

#### Larger enterprises are more likely to use e-payments

About 41% of all enterprises used e-payments in their businesses, with higher adoption rates among the enterprises with more employees (Chart 3.6).

**Chart 3.7: Enterprises that use e-payments by employment size**



Amongst enterprises that did not use e-payments, the top reason for not using e-payment was because enterprises felt that the nature of their business was not a good fit for e-payment (Table 3.2). A high proportion of those from the *Other Service Industries*<sup>2</sup> and *Health and Social Services* sectors did not see their business as needing e-payment.

**Table 3.2: Top five barriers to e-payment adoption, 2011 - 2013**

Barriers to E-payment Adoption	2013	2012	2011
Nature of business is not a good fit for e-payment	1	1	1
Cost of transaction fees	2	2	2
Not sure of e-payment benefits to business	3	3	5
Limited resources/capability/knowledge to adopt and operate e-payment system	4	5	3
Poor awareness/understanding of e-payment	5	4	6

Base: Enterprise that do not use e-payment

<sup>2</sup> *Other Service Industries* include personal and household services not elsewhere classified such as hairdressing shops, beauty salons and spas, repair and maintenance of motor vehicles, activities of other membership organisations.



## 4. INFOCOMM SECURITY

### 4.1 Infocomm Security adoption

***Infocomm security adoption on the rise among enterprises with Virus Checking or Protection Software being the most commonly adopted infocomm security measure among all enterprises***

Enterprises have increased their adoption of the various infocomm security measures across the years (Table 4.1). *Virus Checking or Protection Software* was the most pervasive infocomm security measure among all enterprises; with *Firewall* and *Anti-spyware* being the next most commonly deployed infocomm security measures.

**Table 4.1: Infocomm security measure, 2011 - 2013**

	<b>Infocomm Security Measure</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
1	Virus checking or protection software	95%	94%	95%
2	Firewall	77%	73%	71%
3	Anti-spyware software	77%	68%	71%
4	Regular backup of critical data	72%	64%	58%
5	Spam filter	65%	53%	54%
6	Offsite data backup	33%	23%	21%
7	Access control software/hardware	32%	23%	24%
8	Encrypted transmission of sensitive information (SSL)	27%	21%	22%
9	Intrusion detection system	21%	14%	15%

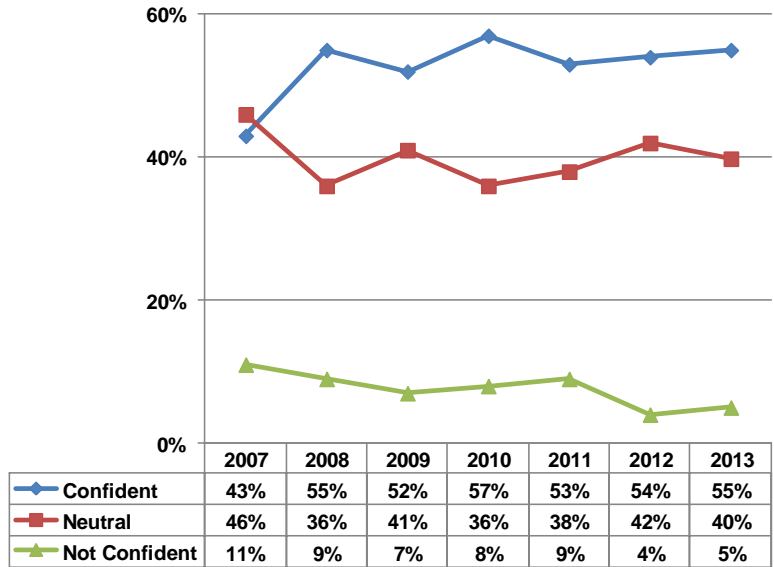
Base: All enterprises who adopt infocomm security measures and computer usage

### 4.2 Confidence Level in Singapore as a Trusted Hub

***More than half indicated their confidence in Singapore as a trusted hub to conduct business in cyberspace***

For enterprises that used computers, about 55% indicated “Highly Confident” or “Confident” in Singapore as a trusted environment to conduct business in cyberspace (Chart 4.1).

**Chart 4.1: Confidence level in Singapore as a trusted environment to conduct business  
in cyberspace**



Base: All enterprises with computer usage

### 4.3 Infocomm Security Education

***More than 1 in 10 enterprises educate employees regarding infocomm security***

About 14% of enterprises invested in educating their employees on infocomm security<sup>3</sup> in 2013. Enterprises spent an average of 7 days on infocomm education for each of their staff and an average of S\$6,700 on infocomm security education in 2013.

<sup>3</sup> Infocomm security education includes education for employees on the security habits and practices to protect the enterprise's information and computers.